

Claims

1. Electronic editor (4) for formulae for calculating the price of a service designed to define said formula in a format directly readable by an electronic costing system, the electronic costing system being designed to establish, with the aid of said formula, the price of a service using information on the service consumed contained in consumption variables, said editor comprising:

- an electronic calculator (10) capable of defining the calculation formula and storing it in the first means (32) for storing information,

wherein the calculator (10) comprises:

- an acquisition module (26) for said formula in the form of a tree structure formed from nodes, connected to one another by arcs, each node being associated with a calculating operation designed to be executed by the costing system to establish the price of the service and the relationship between the arcs of the nodes defining the order, by means of an ordered relationship, in which said operations have to be carried out by the electronic costing system, and

- a module (28) designed to convert automatically the acquired tree structure into a directly readable format by the electronic costing system and to store the converted tree structure in the first means (32) for storing information.

2. Editor according to claim 1, wherein the calculator (10) comprises a module (34) for displaying the tree structure during acquisition or when acquired.

3. Editor according to any of the preceding claims, wherein the acquisition module (26) is capable of creating, under the control of the user, a first-level node in said tree structure solely associated with an operation for activating child nodes of this node in response to receiving a new value for one of the consumption variables processed by a calculation operation associated with one of the child nodes.

4. Editor according to any of the preceding claims, wherein the acquisition module (26) is capable of creating, under the control of the user, a first-level node in said tree structure, solely associated with the operation for activating its child nodes and the calculation operation associated therewith, at predetermined time intervals.
5. Editor according to any of the preceding claims, wherein the acquisition module (26) is capable of creating, under the control of the user, a processing node in said tree structure, solely associated with an operation for calculating a new value from the values of the consumption variables and pre-existing calculated variables and for allocating this new value to a consumption variable or to a pre-existing or new calculated variable.
6. Editor according to claim 5, wherein the acquisition module (26) is capable of creating, under the control of the user, a decision node solely associated with a conditional activation operation of all of its child nodes and the calculating operation associated therewith, using the value of a consumption variable or a calculated variable.
7. Editor according to claim 5 or 6, wherein the acquisition module (26) is capable of creating, under the control of a user, a split node solely associated with an operation for extracting from the value of a consumption variable or a calculated variable, a range of values either between a lower limit and an upper limit, or outside these limits, the child nodes processing the range of values extracted.
8. Editor according to any of the preceding claims, wherein the acquisition module (26) is capable of creating, under the control of a user, a node in the tree structure, solely associated with an operation for unit conversion of a calculated value.
9. Editor according to any of the preceding claims, wherein the acquisition module (26) is capable of creating, under the control of a user, an ending in the tree structure, solely associated with an operation for calculating a price and with an operation for stopping the costing system from passing through the tree structure.

10. Editor according to any of the preceding claims, wherein it comprises second means (12) for storing information containing a library (16) of pre-stored nodes associated respectively with pre-defined parameterisable operations and wherein the acquisition module (26) comprises a sub-module (40) for selecting nodes contained in the library (16), a sub-module (42) for connecting nodes selected with the aid of the selection sub-module (40) to a father node and a sub-module (44) for parametering the parameterisable operations associated with the nodes of the library (16).

11. Electronic system for costing designed to establish automatically the price of a service from information on the service consumed, contained in consumption variables and with the aid of a calculation formula defined by an electronic editor according to any of the preceding claims, the system comprising:

- a receiver (70) for information on the service consumed capable of storing this information in the consumption variables.

- means (32) for storing information containing the formula (48) for calculating the price of the service,

wherein it comprises an electronic calculating unit (72), capable of executing the operations associated with the nodes and endings of the calculation formula (48), in response to information received by the receiver (70) so as to pass through the tree structure of the calculation formula from the root node to at least one of the endings by executing successively the conditional activation operation of the father nodes, then solely the conditional activation operations associated with the activated child nodes until at least one ending associated with an operation to calculate a price has been activated and to execute the endings to establish automatically the price of the service.

12. Method for defining a formula for calculating the price of a service in a directly readable format by an electronic costing system, the electronic costing system being capable, with the aid of said formula, of establishing the price of a service from information on the service consumed contained in consumption variables, wherein it comprises:

- an acquisition step (84) of said formula by an electronic calculator (10) in the form of a tree structure formed from nodes connected to one another by arcs, each node being associated with an operation designed to be executed by the electronic costing system to establish the price of the service and the relationship between arcs of the nodes defining the order, by means of an ordered relationship, in which said operations have to be carried out by the electronic costing system and

- an automatic conversion step (88) by the electronic calculator (10) of said tree structure acquired in a format directly readable by the electronic costing system and storing the converted tree structure in the means (32) for storing information.

13. Method according to claim 12, wherein the acquisition step (84) comprises:

- a sub-step (85) of selecting a node in a library (16) of pre-stored nodes, the pre-stored nodes being associated respectively with pre-defined parameterisable operations,
- a sub-step (86) of connecting the selected node during the selection sub-step (85) to a father node,
- a sub-step (87) of parametering the operation of the node connected to the father node during the connection sub-step (86).